Assessor's Office

Residential and Commercial Revaluation

2021 Tax Year Annual Report

Lewis County Assessor's Office
Chehalis, Washington

Dear Property Owners:

Property assessments for the 2021 tax year were completed by my appraisers throughout the year and change of value notices were mailed in September and October 2020. Notices for value changes based on new construction were also sent in September and October 2020.

We value property at fee simple, reflecting property at its highest and best use, and following the requirement of RCW 84.40.030 to appraise property at its true and fair market value.

The following report summarizes the results of the 2020 assessment for taxes payable in 2021 for the Toledo, Vader, and Winlock areas (see map within report). In addition, summary data is included for the trended non-inspected areas of the county. This information is meant to provide you with helpful background information about the inspection and valuation process used and to give you the basis for property assessments in your area.

Fair and uniform assessments set the foundation for effective government. I am pleased that my office continues to implement new technologies and methodologies to make continuous and ongoing improvements to serve you.

The mission of the Lewis County Assessor's Office is to appraise all property equally and fairly, maintaining accurate assessment information for taxation purposes, while being courteous and professional to Lewis County taxpayers.
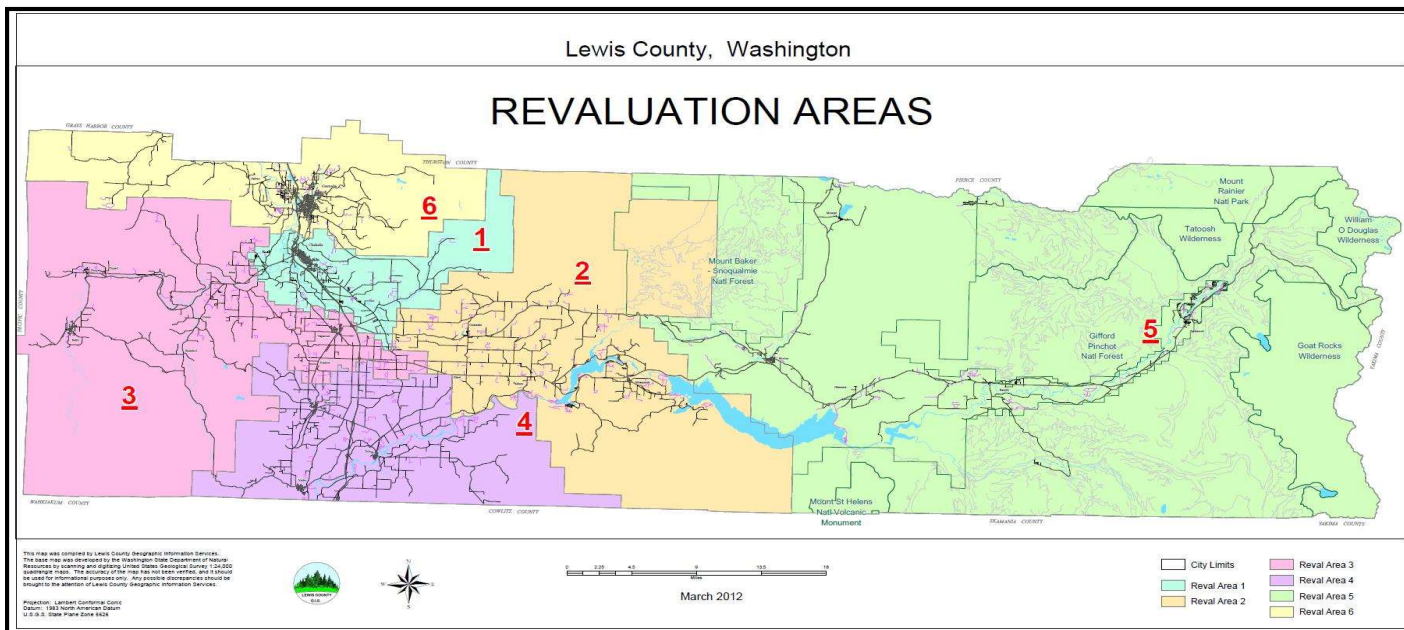
If you have questions about the property assessment process and how it relates to your property, please feel welcome to contact the Assessor's Office.
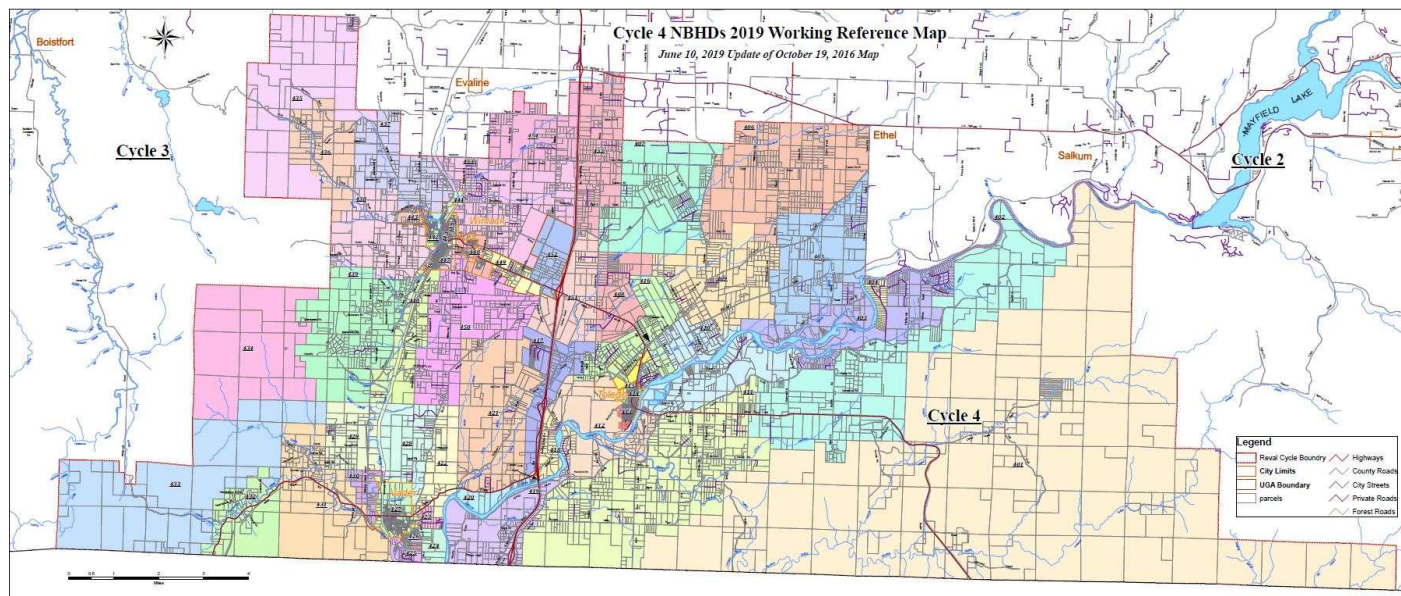
Respectfully,

Dianne Dorey

Dianne Dorey,
Lewis County Assessor

COUNTY AREA MAP WITH REVAL AREAS INDICATED

COUNTY AREA MAP FOR CYCLE 4

Summary of Ratio Analyses

A study of valid sales within the physical inspection cycle was used in the valuation of the Toledo, Winlock, and Vader areas. Below is our analysis of the sales used. Please refer to Page 7 in the report regarding the criteria used and for definitions. Below is the analysis of the sales before inspection:

Tax Year 2021				
Cycle Trend Report	*Lien Date:*	*Report Date:*		*Date Range of Sales:*
Cycle 4 (Tol/Win/Vad)	**1/1/2020**	**12/9/2020**		**1/1/2019-12/31/2019**
All Sales Before Reval				
SAMPLE STATISTICS				
Sample size (n)	170			
Mean Assessed Value	213,100			
Mean Sales Price	249,400			
Standard Deviation AV	116,830			
Standard Deviation SP	122,529			
ASSESSMENT LEVEL				
Arithmetic mean ratio	0.871			
Median Ratio	0.863			
Weighted Mean Ratio	0.854			
UNIFORMITY				
Lowest ratio	0.2154			
Highest ratio:	1.7254			
Coeffient of Dispersion	18.07%			
Standard Deviation	0.2098			
Coefficient of Variation	24.07%			
Price-related Differential	1.02			
RELIABILITY				
95% Confidence: Median				
Lower limit	0.828			
Upper limit	0.917			
95% Confidence: Mean				
Lower limit	0.840			
Upper limit	0.903			
SAMPLE SIZE EVALUATION				
N (population size)	8895			
B (acceptable error - in decimal)	0.1			
S (estimated from this sample)	0.2098			
Recommended minimum:	18			
Actual sample size:	170			
Conclusion:	OK			
NORMALITY				
Binomial Test				
# ratios below mean:	86			
# ratios above mean:	84			
z:	0.076696499			
Conclusion:	Normal*			
*i.e., no evidence of non-normality				

Ratio Frequency (histogram)

Number of Sales vs. Ratio — bars: 2, 2, 4, 6, 19, 31, 31, 44, 16, 6, 7, 3

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.08	0.66
2nd Std Dev	1.29	0.45

Below is the analysis after the revaluation:

Tax Year 2021					
Cycle Trend Report	*Lien Date:*	*Report Date:*		*Date Range of Sales:*	
Cycle 4 (Tol/Win/Vad)	1/1/2020	12/9/2020		1/1/2019-12/31/2019	
All Sales After Reval					
SAMPLE STATISTICS					
Sample size (n)	170				
Mean Assessed Value	235,900				
Mean Sales Price	249,400				
Standard Deviation AV	115,148				
Standard Deviation SP	122,529				
ASSESSMENT LEVEL					
Arithmetic mean ratio	0.971				
Median Ratio	0.958				
Weighted Mean Ratio	0.946				
UNIFORMITY					
Lowest ratio	0.6528				
Highest ratio:	1.5966				
Coeffient of Dispersion	11.46%				
Standard Deviation	0.1575				
Coefficient of Variation	16.22%				
Price-related Differential	1.03				
RELIABILITY					
95% Confidence: Median					
Lower limit	0.939				
Upper limit	0.976				
95% Confidence: Mean					
Lower limit	0.947				
Upper limit	0.995				
SAMPLE SIZE EVALUATION					
N (population size)	8895				
B (acceptable error - in decimal)	0.1				
S (estimated from this sample)	0.1575				
Recommended minimum:	10				
Actual sample size:	170				
Conclusion:	OK				
NORMALITY					
Binomial Test					
# ratios below mean:	96				
# ratios above mean:	74				
z:	1.610626477				
Conclusion:	*Normal**				
*i.e., no evidence of non-normality					

Ratio Frequency

(histogram: Number of Sales vs Ratio; bars: 5 at ~0.7, 12 at ~0.8, 36 at ~0.9, 61 at ~1.0, 33 at ~1.1, 9 at ~1.2, 9 at ~1.3, 5 at ~1.45)

Note: COV/COD are typically high for this report, as it includes many property types and areas.

| Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.13	0.81
2nd Std Dev	1.29	0.66

These analyses include multiple property types in multiple areas, and as such may have higher PRD, COV, and COD when compared to analyzing a single property type in a single area. For details see below in the body of this report.

Below are charts and tables showing the population of parcels compared with sales of residential and manufactured homes in Cycle 4 reflecting above grade living area (AGLA) and year built (YB).
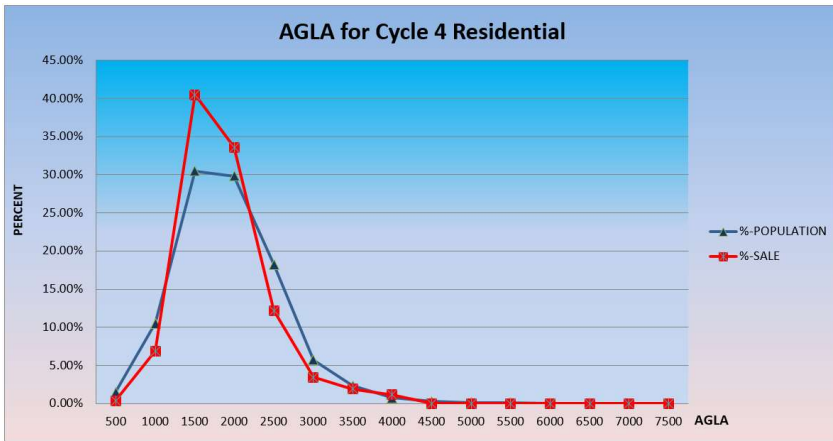
AGLA for Cycle 4 Residential

AGLA-POPULATION	FREQ	%-POPULATION	FREQ	%-SALE
500	45	1.48%	1	0.38%
1000	320	10.53%	18	6.87%
1500	926	30.47%	106	40.46%
2000	907	29.85%	88	33.59%
2500	554	18.23%	32	12.21%
3000	174	5.73%	9	3.44%
3500	71	2.34%	5	1.91%
4000	22	0.72%	3	1.15%
4500	9	0.30%	0	0.00%
5000	4	0.13%	0	0.00%
5500	4	0.13%	0	0.00%
6000	1	0.03%	0	0.00%
6500	1	0.03%	0	0.00%
7000	0	0.00%	0	0.00%
7500	1	0.03%	0	0.00%
Totals	**3039**	**100.00%**	**262**	**100.00%**
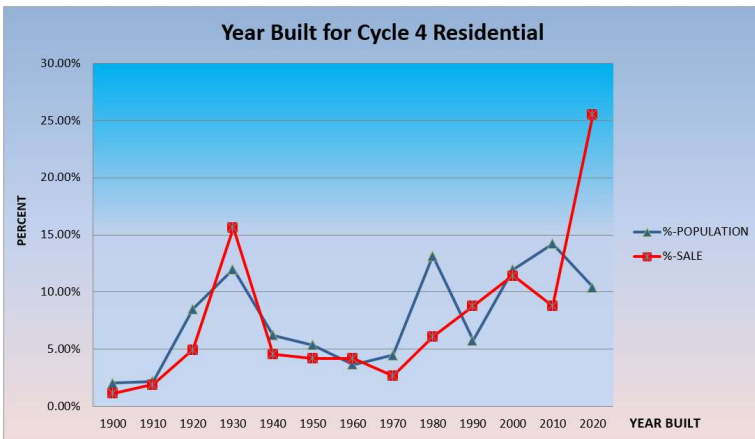
Year Built for Cycle 4 Residential

YB-POPULATION	FREQ	%-POPULATION	FREQ	%-SALE
1900	62	2.04%	3	1.15%
1910	67	2.20%	5	1.91%
1920	259	8.52%	13	4.96%
1930	365	12.01%	41	15.65%
1940	189	6.22%	12	4.58%
1950	163	5.36%	11	4.20%
1960	111	3.65%	11	4.20%
1970	136	4.47%	7	2.67%
1980	400	13.16%	16	6.11%
1990	175	5.76%	23	8.78%
2000	364	11.97%	30	11.45%
2010	433	14.24%	23	8.78%
2020	316	10.39%	67	25.57%
Totals	**3040**	**100.00%**	**262**	**100.00%**

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AGLA for Cycle 4 Manufactured Homes with Land
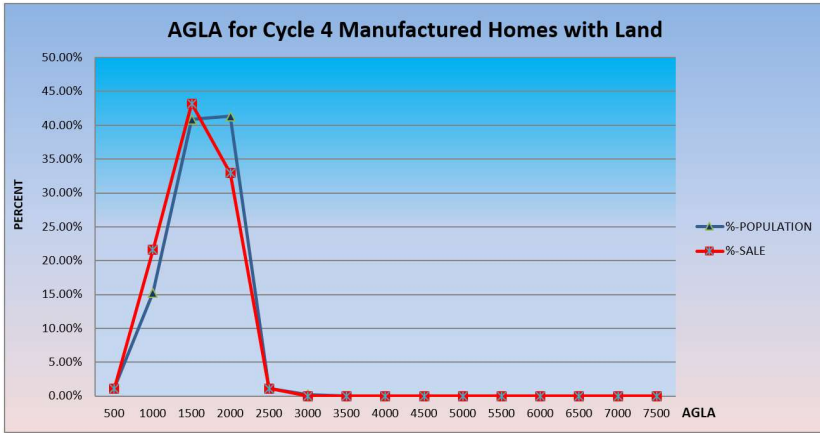
AGLA for Cycle 4 Manufactured Homes with Land				
AGLA-POPULATION	FREQ	%-POPULATION	FREQ	%-SALE
500	10	1.23%	1	1.14%
1000	124	15.25%	19	21.59%
1500	332	40.84%	38	43.18%
2000	336	41.33%	29	32.95%
2500	9	1.11%	1	1.14%
3000	2	0.25%	0	0.00%
3500	0	0.00%	0	0.00%
4000	0	0.00%	0	0.00%
4500	0	0.00%	0	0.00%
5000	0	0.00%	0	0.00%
5500	0	0.00%	0	0.00%
6000	0	0.00%	0	0.00%
6500	0	0.00%	0	0.00%
7000	0	0.00%	0	0.00%
7500	0	0.00%	0	0.00%
Totals	813	100.00%	88	100.00%

Year Built for Cycle 4 Manufactured Homes with Land
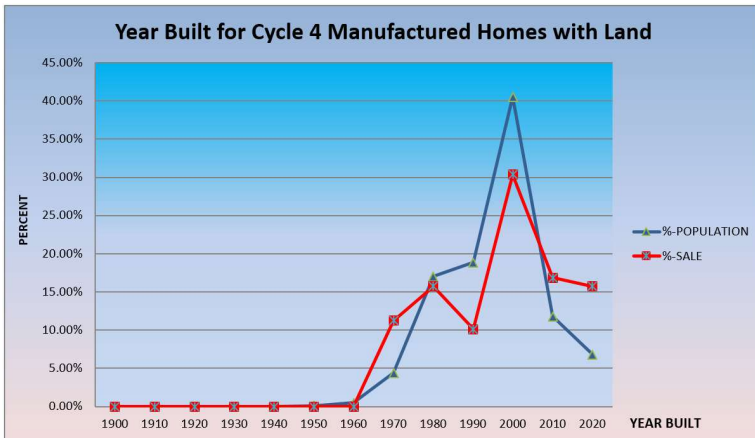
Year Built for Cycle 4 Manufactured Homes with Land				
YB-POPULATION	FREQ	%-POPULATION	FREQ	%-SALE
1900	0	0.00%	0	0.00%
1910	0	0.00%	0	0.00%
1920	0	0.00%	0	0.00%
1930	0	0.00%	0	0.00%
1940	0	0.00%	0	0.00%
1950	1	0.12%	0	0.00%
1960	4	0.49%	0	0.00%
1970	36	4.38%	10	11.24%
1980	140	17.03%	14	15.73%
1990	155	18.86%	9	10.11%
2000	333	40.51%	27	30.34%
2010	97	11.80%	15	16.85%
2020	56	6.81%	14	15.73%
Totals	822	100.00%	89	100.00%

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CRITERIA AND DEFINITIONS FOR THE RESIDENTIAL REVALUATION REPORT

Sales Criteria:
- Only valid sales are included
- Ratio equals assessed value divided by sale price
- Land sales that were improved after the sale are included using only current land value or were excluded
- Improved residential and commercial sales including vacant land sales were used

Sales Excluded:
- Property types excluded from this report are as follows: Properties in forest, open space, and agricultural programs
- Sales with ratios below .40 and above 2.00 are generally excluded

Property Use Definitions:
- **Condominium:** individual ownership of a unit in a multi-unit structure (such as an apartment building) or on land owned in common (such as a town house complex)
- **Multi-Family:** 2-4 unit site-built housing
- **Single Family:** site-built & modular housing only, *not* mobile/manufactured
- **Mobile/Manufactured Home:** prefabricated or off-site built structures, often residences
- **Vacant land:** any real property with zero (0) improvement value
- **Commercial/Industrial:** properties typically engaged in commerce (this would also include larger multi-family housing)

Measures of Central Tendency:
- **Mean:** the "average" value or ratio, is computed by summing the values and dividing by sample size and is more affected by extreme values than the median
- **Median:** the midpoint or middle value or ratio (Note: If the number of data items is even, the median is the midpoint between the two middle values)
- **Mode:** the most frequently occurring number
- **Weighted Mean:** an aggregate ratio, weighs each ratio in proportion to its sale price, and is the sum of assessed values divided by the sum of sale prices

Measures of Uniformity:
- **Standard Deviation:** square root of the variance, assuming a normal data distribution
  Approx. 68% will lie within +/- 1 standard deviation of the mean
  Approx. 95% will lie within +/- 2 standard deviation of the mean
  Approx. 99% will lie within +/- 3 standard deviation of the mean
- **Price Related Differential (PRD):** calculated by dividing the *mean* by the *weighted mean.*
  PRD > 1.03 indicates relative under appraisal of higher value parcels **(assessment regressivity)**
  PRD < 0.98 indicates relative over appraisal of higher value parcels **(assessment progressivity)**
- **Coefficient of Dispersion (COD):** represents the average percent difference from the *median*
  The most widely used measure of uniformity in ratio studies.
  IAAO standards are:
  10.0 or less for properties in newer relatively homogeneous areas
  15.0 or less for properties in older, heterogeneous areas
  20.0 or less for vacant land
  * Please note that the cycle ratio studies included in this report may have higher COD and/or COV than typical, as multiple property types are included, i.e. manufactured homes, residential properties, bare land, and land with buildings included in the same report.

- **Coefficient of Variation (COV):** COV or CV is the ratio of the standard deviation (above) to the mean (above). This is determined by dividing the standard deviation by the mean. Generally speaking, the lower the value of the COV, the more precise the estimate or value. It expresses the standard deviation as a percentage, making comparison among groups easier.
  - Approx. 68% will lie within one COV of the mean ratio
  - Approx. 95% will lie within two COV of the mean ratio
  - Approx. 99% will lie within three COV of the mean ratio

Labels:

The letter **n** represents the number of cases reported in statistical reports.

From the IAAO Technical Standards:

- **14.2.2 Uniformity among Single-Family Residential Properties:** The COD for single-family homes and condominiums should be 15.0 or less. In areas of newer or somewhat similar residences, it should be 10.0 or less.
- **14.2.3 Uniformity among Income-Producing Properties:** The COD should be 20.0 or less. In larger, urban jurisdictions, it should be 15.0 or less.
- **14.2.4 Uniformity among Unimproved Properties:** The COD for vacant land should be 20.0 or less.
- **14.2.5 Uniformity among Rural Residential and Seasonal Properties:** The COD for heterogeneous rural residential property and seasonal homes should be 20.0 or less.
- **14.2.6 Uniformity among Other Properties:** Target CODs for special-purpose real property and personal property should reflect the nature of the properties involved, market conditions, and the availability of reliable market indicators.
- **14.2.7 Vertical Equity:** PRDs should be between 0.98 and 1.03. The reason this range is not centered on 1.00 relates to an inherent upward bias in the arithmetic mean (numerator in the PRD) that does not equally affect the weighted mean (denominator in the PRD). When samples are small, have high dispersion, or include properties with extreme values, the PRD may not provide an accurate indication of assessment regressivity or progressivity. Similar considerations apply to special-purpose real property and to personal property. It is good practice to perform an appropriate statistical test for price-related biases before concluding that they exist (see table 5). *Source: IAAO Technical Standards*

Certificate of Appraisal

- The appraisers are, at minimum, accredited by the State of Washington, Department of Revenue. In some cases, a trainee may have work reviewed by the senior appraiser.
- By signing this report, the Assessor certifies she has the knowledgeable appraisers, experience, and expertise to complete this Assessor's Annual Report of Appraisal. Professional assistance, if required, may be used and disclosed.
- To the best of the appraiser's knowledge and belief, all statements and information in this report are true and correct, and they have not knowingly withheld any significant information.
- The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions, and is the appraiser's personal, impartial and unbiased professional analysis, opinions and conclusions.
- The appraisers have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
- The appraisers' engagement in this assignment was not contingent upon developing or reporting predetermined results.
- The appraisers' compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- The appraisers' analyses, opinions, and conclusions were developed and this report has been prepared in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP).
- Appraisers employed by the Lewis County Assessor's Office performed the inspections.

Type of Report – Mass Appraisal Report:

This is a report of the Lewis County Assessor's Mass Appraisal for the geographic area named as required under Standard 6-8, Uniform Standards of Professional Appraisal Practice (USPAP):

This document is not intended to be a self-contained document of the mass appraisal, but to summarize the methods and data used and to guide the reader to other documents or files, which were relied upon to perform the mass appraisal. These other documents may include the following:

- Individual Property Records - Contained in Assessor's Property System Database / Sigma
- Real Estate Sales File – Part of Assessor's Property System Database / Sigma
- Sales Review File (Returned Questionnaires)
- Cost Tables – Contained in Assessor's Property System Database / Sigma
- Depreciation Tables – Contained in the Assessor's Property System Database / Sigma
- Revised Code of Washington (RCW) - Title 84
- Washington Administrative Code (WAC) – WAC 458
- Uniform Standards of Professional Appraisal Practice (USPAP) published by the Appraisal Standards Board of the Appraisal Foundation
- Lewis County Assessor's Manual – Published by DOR, November 2011(also revised in October 2017)
- Mass Appraisal Report data extracts and sales files

Appraisal Staff

The appraisers of Lewis County have been involved with the revaluation of the physically inspected area including physical inspections of properties, cost and depreciation adjustments, valuation of improved and non-improved properties, sales verification, and statistical analysis. This would also include any inspections and mass updates for the other five cycle areas not physically inspected.

Introduction:

This mass appraisal report is a post-revaluation report card of the physical inspection cycle. As noted previously, it is not a fully self-contained appraisal but rather a summary for the geographic areas identified in the report. The summary statistics apply to the population of sales used as a whole and are not appropriate to apply to any specific property. While property values in a general geographic area may, on average, change by a particular percentage or amount, individual properties may increase or decrease at greater or lesser amounts due to changes in property characteristics or localized market factors that do not affect the broader geographic area that this report covers.

Client:

This residential mass appraisal report was prepared for the Lewis County Assessor as per the Assessor's instructions.

Assessor's Instructions to Appraisers:

- Appraise all properties in each Physical Inspection Cycle by the date specified according to the approved Lewis County revaluation calendar
- The appraisals are to be compliant with Washington State Law (Revised Code of Washington or RCW), Washington State Administrative Code (WAC), Washington State Department of Revenue (DOR) guidelines, International Association of Assessing Officers (IAAO) Standard on Ratio Studies (April 2013 edition), IAAO standard on Mass Appraisal of Real Property, and the Uniform Standards of Professional Appraisal Standards (USPAP) Standards 5 and 6: Mass Appraisal, Development and Reporting
- The appraisals are to be performed using industry standards mass appraisal techniques, including adjusting sales prices for time (when warranted)
- Physical inspections must comply with the revaluation plan approved by the Washington State Department of Revenue. Physical inspections will be, at a minimum, a curbside visit and review of the property characteristics

- An effort should be made to inspect and review all sales that occurred in the year prior to the assessment date. At a minimum, those qualified sales determined to be "outliers" should be examined or, in lieu of examination, a sales questionnaire mailed to the owner or an internet review performed via real estate websites
- A written mass appraisal report that is compliant with USPAP Standard 6 must be completed that includes each of Lewis County's physical inspection cycles
- The intended use of the appraisals and subsequent report is the administration of ad valorem property appraisals

Intended User(s):

Intended users include the Lewis County Assessor, the Lewis County Board of Equalization and/or the Washington State Board of Tax Appeals, and the Washington State Department of Revenue. No other users are intended or implied.

Use of This Report:

The use of this report, its analysis, and conclusions, is limited to the administration of appraisals for property tax purposes in accordance with Washington State law and administrative code. The information and conclusions contained in this report cannot be relied upon for any other purpose.

Assumptions and Limiting Conditions:

- This revaluation is a mass appraisal assignment resulting in conclusions of market value for ad valorem tax purposes and no one should rely on this study for any other purpose. **The opinion of value on any parcel may not be applicable for any use other than ad valorem taxation.**
- This is a retrospective analysis with an assumed data cut-off date as of the appraisal date specified in this report.
- Properties are appraised as if free and clear of any and all liens or encumbrances unless otherwise stated.
- No personal property is included in the value. Fixtures are generally accepted as real property. Business value is personal property and is exempt.
- Responsible ownership and competent property management are assumed.
- It is assumed there are no hidden conditions of the property, subsoil, or structures that render it more or less valuable, unless specifically noted in the property system database.
- The appraiser is not qualified to detect the existence of potentially hazardous material which may or may not be present on or near the property. The existence of such substances may have an effect on the value of the property. It is assumed there are no hazardous materials affecting the value of the property, unless specifically identified in the property system database.
- It is assumed there is full compliance with all applicable federal, state, and local environmental regulations and laws, unless noncompliance has been noted in the property system database.
- It is assumed all applicable zoning and use regulations and restrictions have been complied with, unless otherwise noted in the property system database.
- It is assumed all required licenses, permits, certificates, consents, easements, or other legislative or administrative authority from any local, state, or national government, or private entity or organization have been or can be obtained or renewed for any use on which the value estimate is based, unless otherwise noted in the property system database.
- It is assumed there are no adverse easements, encroachments, restrictions, encumbrances, leases, reservations, covenants, contracts, declarations, special assessments, ordinances, or other items of similar nature significantly affecting the value of the property, unless otherwise noted in the property system database.
- No responsibility is assumed for matters pertaining to legal or title considerations.
- Fiscal constraints may impact data completeness and accuracy, valuation methods, and valuation accuracy.
- The Assessor's records are assumed correct for the properties appraised.
- Sales utilized are assumed arm's-length market transactions based on initial validation review; fiscal constraints limit the Assessor's ability to verify all transactions beyond this initial sales screening.

- Secondary sales validation is limited to the mailing of sales questionnaires, internet research, and/or inspection of sales selected by a reviewer (sales with extreme ratios) or sales from financial institutions where initial screening indicates the transfer to be a qualified sale.
- The subject property is assumed buildable, unless otherwise noted in the property system database.
- It is assumed the property is unaffected by sensitive or critical areas regulations (federal, state or local), unless otherwise noted in the property system database.
- Maps, aerials, and drawings may be included to assist the intended user in visualizing the property; however, no responsibility is assumed as to their exactness.
- The value conclusions contained in this report apply to the subject parcels only and are valid only for assessment purposes. No attempt has been made to relate the conclusions in this report to any other revaluation, past, present, or future.
- It is assumed exposure time for the properties appraised are typical for their market area.
- It is assumed the legal descriptions stored in the Assessor's property system database for the properties appraised are correct. No survey or search of title of the properties has been made for this report and no responsibility for legal matters is assumed.
- Rental rates, when employed, were calculated in accordance with generally accepted appraisal industry standards.
- The Lewis County Assessor's Office utilizes a limited sales database that captures property characteristics at the time of sale. Staffing resources limit the level of sales review required to support this activity.
- Exterior inspections were made of all properties in the physical inspection areas per the revaluation plan approved by the Washington State Department of Revenue. Due to lack of access, some properties did not receive walk around inspections nor did improved properties receive interior inspections. An effort was made to either inspect or validate the sales that were selected by the Sales Analyst.
- The values reported herein are only valid as of the date of this report. Values of individual properties may change through normal jurisdictional processes.

Inspection of Properties:
- **RCW 84.41.041** - Each county assessor shall cause taxable real property to be physically inspected and valued at least once every six years in accordance with RCW 84.41.030, and in accordance with a plan filed with and approved by the Department of Revenue. Such revaluation plan must provide that all taxable real property within a county must be revalued and these newly determined values placed on the assessment rolls each year.
- **Jurisdictional Exception -** The mass appraisal must be completed within the time constraints set by statute and with the work force and financial resources available. As these constraints limit the scope of work performed for the mass appraisal, limiting the ability to fully comply with USPAP Standards 6, the Jurisdictional Exception as provided for in Standard 6 is invoked.
- **RCW 84.40.025 – Access to property required.** For the purpose of assessment and valuation of all taxable property in each county, any real or personal property in each county shall be subject to visitation, investigation, examination, discovery, and listing at any reasonable time by the county assessor of the county or by any employee thereof designated for the purpose by the assessor. In any case of refusal to such access, the assessor shall request assistance from the Department of Revenue which may invoke the power granted by chapter 84.08 RCW.

Date of Appraisal:
The appraisal date for properties, other than new construction, is January 1, 2020.
  RCW 84.40.020 Assessment date — average inventory basis may be used — public inspection of listing, documents, and records.
- All real property in this state subject to taxation shall be listed and assessed every year, with reference to its value on the first day of January of the year in which it is assessed.
- The appraisal date for new construction, that is those properties that were issued a building permit or should have been issued a building permit, is July 31, 2020.

RCW 36.21.080: New construction building permits: When property placed on assessment rolls.

- The county assessor is authorized to place any property that is increased in value due to construction or alteration for which a building permit was issued, or should have been issued, under chapter 19.27, 19.27A, or 19.28 RCW or other laws providing for building permits on the assessment rolls for the purposes of tax levy up to August 31st of each year. The assessed valuation of the property shall be considered as of July 31st of that year.

Type of Value – Market Value for Assessment Purposes:

- **Market Value:** The basis of all assessments is the true and fair market value of property. True and fair market value (Spokane etc. R. Company v. Spokane County, 75 Wash. 72 (1913); Mason County Overtaxed, Inc. v. Mason County, 62d (1963); AGO 57-58, No. 2, 1/8/57; AGO 65-66, No. 65 12/31/65) ... or amount of money a buyer is willing but not obligated to buy would pay for it to a seller willing but not obligated to sell. In arriving at a determination of such value, the assessing officer can consider only those factors that can within reason be said to affect the price in negotiations between a willing purchaser and willing seller, and he must consider all of such factors (AGO 65.66. No. 65, 12/31/65).

Property Rights Appraised – Fee Simple:

- Fee Simple Title: Fee simple title indicates ownership that is absolute and subject to no limitation other than eminent domain, police power, escheat and taxation. (International Association of Assessing Officers, *Glossary for Property Appraisal and Assessment, (Chicago. IAAO 1997)).*

Sales Source:

- The Lewis County Assessor's Office utilizes sales obtained from Real Estate Excise Tax Affidavits filed with the Lewis County Treasurer's Office.

Sales Review:

- Sales are assumed to be arm's length transactions based on initial screening in the sales verification process utilizing standards published by the Washington State Department of Revenue.
- The mass appraisal must be completed within the time constraints set by statute and with the work force and financial resources available. These constraints limit the amount of sales review that can occur.
- Sales located in the scheduled physical inspection review area receive, at a minimum, an external inspection.
- Whenever possible, sales located outside the scheduled physical inspection review area receive an inspection also, although some are reviewed in house via sales documents, online verification, or via contact with purchaser/seller/Realtor through phone call or mail/email.
- Sales identified as being an outlier may receive a sales questionnaire and/or be scheduled for sales review. The sales review may include a site visit and/or contact with either the buyer or seller of the property, or a review of published information on various real estate websites and/or county websites.
- The number of properties that actually receive a sales review and/or physical inspection is determined by the number of sales and the availability of staff to perform the task. The majority of the sales (not just outlier sales) were reviewed for accuracy for the 2020 tax year.

Sales used in Analysis: All improved sales which were verified as good that did not have characteristic changes between the date of sale and the date of appraisal were included in the analysis. Mathematical trimming may have occurred where noted.

Conclusion and Recommendation: Value changes in physically inspected area primarily were the result of changes in the improvement values when the sales calibrated cost approach was applied, changes in land value, data changes to building characteristics, and mass adjustments. Changes in land value were often due to adjustments as part of the land value equalization process. Since the values in this report improve uniformity and equity, we recommend posting these values for the 2020 tax year.

Highest and Best Use Analysis:

- **As if vacant:** Market analysis of this area, together with current zoning and current anticipated use patterns, indicate the highest and best use of the majority of the appraised parcels as residential. Any opinion not consistent with this is specifically noted in our records and considered in the valuation of the specific parcel.

- **As if improved:** Based on neighborhood trends, both demographic and current development patterns, the existing buildings represent the highest and best use of most sites. The existing use will continue until land value, in its highest and best use, exceeds the sum of the value of the entire property in its existing use and the cost to remove the improvements. We find that the current improvements do add value to the property, in most cases, and are therefore the highest and best use of the property as improved.

- **Interim Use:** In many instances a property's highest and best use may change in the foreseeable future. A tract of land at the edge of a city might not be ready for immediate development, but current growth trends may suggest that the land should be developed in a few years. The use to which the site is put until it is ready for its future highest and best use is called an interim use. Thus, interim uses are current highest and best uses that are likely to change in a relatively short time.

Standards and Measurement of Data Accuracy:

Each sale was verified with the buyer, seller, real estate agent, or tenant when possible. Current data was verified, updated, and corrected if necessary via field inspection.

LEWIS COUNTY STATISTICS:

Washington State Total Population (2019):	7,614,900
Washington State Unemployment Rate (12/2019):	4.4%
Washington State Median Household Income (2019):	$73,800
Washington State Housing Units (2019):	3,195,000
Washington State Population per Square Mile (2010)	101.2
Lewis County Total Population (2019):	80,700
Lewis County Unemployment Rate (12/2019):	6.6%
Lewis County Median Household Income:	$53,400
Lewis County Housing Units (2019)	35,700
Lewis County Population per Square Mile (2010)	31.4

Numbers rounded to nearest hundred, where applicable, and information provided by census.gov and esd.wa.gov.

COVID-19 INFORMATION:

Values and statistics in this report are based on 2019 sales, assessed during the 2020 assessment year for 2021 taxes, based on an effective date of January 1, 2020.

The first case of COVID-19 in the United States and in Washington was confirmed on January 21, 2020. The sales dates and effective date of this report all predate the confirmation in the U.S., and in Washington State.

Cycle Number(s):	4
Previous Physical Inspection:	2014
Effective Date of Appraisal:	January 1, 2020
Date of Physical Inspections:	November 2019 through June 2020
Parcel Count:	8772
Valid Sales:	228
Overall Value Sale Price Ratio COD*:	16.37%

*COD is a measure of uniformity; the lower the number the better the uniformity. The COD listed above is higher than typical due to inclusion of a wide variety of property types, including: single family residential, manufactured homes (both with and without land), land with buildings, and bare land in a single report.

Cycle 4 Revaluation Area Description: Toledo, Vader, and Winlock Areas:

Overall Description:

Toledo, Vader, and Winlock are located south of the Centralia/Chehalis area. Boundaries for this area are: Raubuck Road to the north, Due Road to the east, Cowlitz County to the south, and Wildwood Road to the west. Generally, Winlock and Vader both are to the west of Interstate 5, and Toledo lies to the east of Interstate 5. Some mailing addresses and school districts do cross the interstate.

Interstate Five runs north south between the smaller cities. State Route 505 runs east from Winlock through Toledo and continues east until it finally turns south to Cowlitz County and connects eventually with Mount Saint Helens. The Winlock Vader Road connects Winlock at the north to Vader at the south. Washington Highway 506 starts in Cowlitz County west of Vader, continues through Vader heading east, and ends at Interstate 5, with the Toledo-Vader road continuing to Toledo.

A major feature of this area is the Cowlitz River, which runs from the east end of the county, winding down eventually through Toledo and Vader, then continues south into Cowlitz County. Numerous creeks and tributaries are also located in the area.

This area has adequate access to local schools, grocery stores, gas stations and health services, although most of it is a semi-rural area, so greater than normal distances to these services is typical. Primary employment centers are Centralia/Chehalis, and to a further extent, the Tacoma/Olympia and Longview/Kelso areas. Some jobs (generally services and retail) are located locally, primarily in the Toledo and Winlock areas, with a few stores and businesses located along major roads.

Homes in Toledo, Vader, and Winlock cities have access to public services (water and sewer), along with some of the rural communities that have private combined services. Most of the rural area homes have private or shared wells and septic systems. Broadband internet is available in many areas, with Toledotel providing a superior broadband service to the Toledo area when compared to other small towns in the area. This helps to make Toledo a very desirable area to live, and is relatively unique in the area for a smaller town.

Topography in the general area varies from level to very steep, with major roads typically following rivers and/or connecting small cities and towns. Much of the rural area is comprised residential land interspersed with agricultural, forest, and farmland. Many of the more rural residential parcels are larger acreage parcels, with many clusters of smaller lots and small subdivisions scattered about.

Properties in this general area are comprised of a great variety of types, qualities, and sizes of homes and manufactured homes on greatly varying land qualities and sizes. Areas of good to very good views are located in this area, along with areas with no views. Areas along rivers can be desirable, but can also be problematic with regards to flooding or other issues typical around rivers and creeks.

There are quite a few recreational opportunities in this general area, with many parks, hiking trails, logging roads, and other activities.

Areas (by school district):

Toledo is a relatively small city located approximately two miles east of Interstate Five, along State Route 505, and bordered on the east and south by the Cowlitz River. Founded in 1892, Toledo was a riverboat destination for both goods and passengers. Toledo has its own school district, with elementary, middle, and high schools. It also has a grocery store, a bank, a few restaurants, and a few other small businesses. Toledo is also a stop along the way to Mount Saint Helens, which brings tourists through the town. Population is approximately 654 as of 2019.

Winlock is a relatively small city located approximately three miles west of Interstate Five. It is located along State Highway 603, between Napavine and Vader, and Olequa Creek runs north-south through the city. Incorporated in 1883, Winlock has its own school district, with elementary, middle, and high schools, along with a school district based alternative middle/high school. Winlock has a grocery store, a hardware store, some restaurants, and a few other small businesses. Winlock was at one time was a major egg producer. Cardinal Glass is located in the rural Winlock area, which is a major glass producer, and provider of jobs in the area. Population is approximately 1791 as of 2019.

Vader is a relatively small city located approximately three miles west of Interstate Five, along the southern border of Lewis County. Originally, Vader was named Little Falls, and was incorporated in 1906. At one point, Vader was said to be the largest town between Tacoma and Portland. Vader is home to a restaurant and a few small businesses. Population is approximately 880 as of 2019.

Area Values Summary:

Overall, land values trended upward moderately. Some land values were adjusted upward or downward in order to equalize the land values in the area. Residence and manufactured home values appear to have been in an upward trend value-wise, with some properties having rather dramatic increases, which matches the trending sales in the area and Real Estate reports in the area for the past year.

REVALUATION REPORT FOR TOLEDO, VADER, AND WINLOCK COMMERCIAL AREAS:

Cycle Number(s):	4
Previous Physical Inspection:	2013-2014 for the 2015 tax year**.**
Effective Date of Appraisal:	January 1, 2020
Date of Physical Inspections:	October 2019 through May 2020
Commercial Parcel Count:	228

Sales Summary:

	Total Sales:	20
	Land:	3
	Improved:	17

Range of Sales Dates:	Jun 1, 2016 – Nov 28, 2019
Number of sales outside Cycle 4:	141

Weight was placed on these sales on a case-by-case basis, as results were deemed credible.

Sales – Ratio Study Summary: There were a total of 17 arms-length transaction among improved sales in cycle 4. The average ratio of assessment to sale price was 67%.
Weight was placed on these sales when applicable but due to the lack in volume of valid sales for many of the varied property types, the predominant approaches used were cost and/or income.

Sales Summary: There were a total of 20 valid commercial benchmarked sales used for the analysis. With this limited number of valid sales over the past 4 years, additional sales from outside the cycle 4 area were considered whenever deemed appropriate.

Standards and Measurement of Data Accuracy: Each sale was verified to the best of our ability. Current data was verified and corrected when necessary via field inspection.

Population - Parcel Summary Data:
- Number of parcels located in the area: 228
- Number of parcels physically inspected in the population: 228

Approaches to value: In the absence of sufficiently available comparable sales, the cost and income approaches are considered viable options in determining fair market value.

- The cost approach being the calculated replacement cost new less all forms of depreciation.
- The Income approach being the conversion of an income stream into a market value based on investors expected overall rate of return (overall capitalization rate).

Special Assumptions and Limiting Conditions:

- Sales from January 1, 2016 through December 31, 2019 were considered in all analyses.
- This report intends to meet the requirements of the Uniform Standards of Professional Appraisal Practice, Standard 6.
- Time adjustments were not made to sales due to the lack of reliable sales activity and insufficient data with which to use for time trend analysis.

Maps:
The maps available and used were Sigmap, Geoanalyst, Lewis County Parcel Maps, and Assessor's Maps.

Physical Inspection Areas:

Area Description:

Cycle 4 is qualified by the three school districts established within its boundaries. This area is comprised of three towns. Winlock is the largest (by population) followed by Toledo and then Vader. Toledo is separated from Winlock and Vader to the west by the Interstate corridor running north and south. Each town is located approximately 2-3 miles from the interstate. Winlock and Vader are both split by the main rail line. This area's boundaries are north to the Napavine, Mossyrock, and South to Cowlitz County & west to Pacific County. The Cowlitz River, runs south westerly from Mossyrock, through Toledo and along the south boundary of Vader. The area offers some recreational opportunities which include hunting and fishing, hiking, wildlife watching & scenic backcountry driving. Outside of the city limits the area is predominantly made up of small farms with a handful of exceptions. The rural areas also include a variety of small businesses established prior to county zoning.

New listings appear to show rising price trends in the commercial properties. Toledo and Winlock have a small number of retail stores including grocery, convenience / gas stations, restaurants, and houses of worship. Over the past 20 years, Vader has seen a decline in the number of commercial retail businesses within the city limits. Commercial trends appear to show increasing demand along the I-5 corridor to the north and south leaving the small towns experiencing less growth. Each of the three towns have their own water systems and each has updated sewer plants within the past 10 years. The cycle 4 area is centered between larger shopping areas with Centralia, Chehalis, and Olympia 30-45 minutes to the north and Longview within 30 minutes to the south. Major cities including Seattle and Portland are approximately a 1-2 hour drive.

2018 Population:

Winlock	**1,387**
Toledo	**760**
Vader	**655**

District Description:

Commercial and industrial valuation areas consisted of three general commercial and industrial districts separated by natural, jurisdictional, or man-made boundaries.

The Toledo area, located approximately 3 miles off Interstate Five, is generally defined by Cowlitz County to the south, Interstate 5 to the west, Napavine and Ethel to the north. This business district is comprised of a variety of businesses including, grocery, convenience, restaurants, salons, a bank and a variety of churches. Toledo City sewer and water are readily available within the city limits in most locations. The Toledo Fire Department is centrally located in town next to the police station. The Toledo School District includes grades K-12. The outlying areas surrounding Toledo predominantly include small farms and residential developments.

The Winlock area, located approximately 2 miles west of Interstate Five, is located approximately 2 miles west of I-5. The town is comprised of basic amenities such as grocery, convenience, office, service, hardware, a bank and municipal buildings. The downtown area is divided by the main rail line with most of the commercial buildings on the east side. The outlying areas surrounding Winlock predominantly include small farms and residential developments. Winlock School District offers grades from K-12.

The Vader area lies along the south border of Lewis County, about 3 miles west of Interstate 5.
Within the town itself, there is very limited commercial business activity. The rural Vader area does extend out to the I-5 corridor where there are a few commercial properties along the west side at exit 59. In recent years, due to a lack of funding, the Vader schools were shut down and the Vader school system was annexed into the Castle Rock School district.

- **Conclusion**
  While these more rural districts may not share the same market trends as the more densely populated areas of the county, the values overall appear to be rising due to increasing demand that is following a strengthening residential market. Some small sectors still appear to struggle, such as the common wall properties lining the main streets of downtown Winlock and Vader.
  Over the past several years, online sales have hurt the brick and mortar retail businesses across the board leaving rural retail stores struggling for their market share.
  At this time, with the population growth averaging nearly 2% per year and the added demand for services that accompanies that, there is no reason to suspect commercial values within this inspection area will begin to regress in the near future.

The following charts show statistical data for the county for the 2020 Revaluation for the 2021 tax year. The charts show data before and after trends were applied, and show both each inspection cycle separately, and the entire county as a whole. Below is a summary.

Cycle Trend Report	Mean Ratio Before	Mean Ratio After	Median Ratio Before	Median Ratio After	Sales Count	Parcel Count	Notes
Cycle 1 (Chehalis)	0.872	0.967	0.860	0.958	240	8626	
Cycle 2 (Mossy/Onalsk)	0.874	0.940	0.871	0.939	171	10510	
Cycle 3 (Adna/Napvn)	0.847	0.948	0.854	0.935	160	9381	
Cycle 4 (Tol/Win/Vad)	0.871	0.971	0.863	0.958	170	8895	
Cycle 5 (East County)	0.807	0.916	0.781	0.906	149	11531	
Cycle 6 (Centralia)	0.824	0.944	0.815	0.922	338	12211	
All Cycles	0.848	0.949	0.835	0.938	1228	61154	
							Tax Year 2021
Lien Date							1/1/2020
Report Date							12/9/2020
Sale Dates Range							1/1/2019-12/31/2019

Notes:
- This report includes residential parcels, manufactured homes (both with and without land), land with buildings, and bare land. This gives an overall snapshot of how trending has affected an entire area, but typically this leaves a broad range of indicators of accuracy (COD, COV) and ratios overall.
- The total parcel count listed for each cycle includes timber, commercial, industrial, government, and timber parcels.
- Ratios lower than .40 and higher than 2 were trimmed as outliers, as these numbers can skew data. Sometimes this is reflected in sales counts for each area together not equalling total sale counts.
- A total of 62 distinct trend groups, based on location, property types, and other criteria were used in trending; some areas were combined or valued together where appropriate. Much effort was made to avoid having drastically heterogeneous property types or areas in a trend group.
- For trending purposes, personal property mobile homes, mobile homes with land, and stick built residences were trended separately from each other to help focus the trending accuracy.
- Prior year sales are used during the current year to set values for the next year's taxes. For example, 2019 sales were used during 2020 to set values for 2021 taxes, with a lien date of 1/1/2020.
- The above numbers represent the mean and median ratios of assessed value to sale price. A number like .900 above would represent that the assessed value is 90% of sale price. In this case, on average, a property that sold for $100,000 would be assessed at $90,000.

Tax Year 2021				
Cycle Trend Report	***Lien Date:***	***Report Date:***		***Date Range of Sales:***
All Cycles	**1/1/2020**	**12/9/2020**		**1/1/2019-12/31/2019**
All Sales Before Trend				

SAMPLE STATISTICS	
Sample size (n)	1228
Mean Assessed Value	206,700
Mean Sales Price	246,800
Standard Deviation AV	108,345
Standard Deviation SP	120,110
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.848
Median Ratio	0.835
Weighted Mean Ratio	0.838
UNIFORMITY	
Lowest ratio	0.0822
Highest ratio:	1.9233
Coeffient of Dispersion	16.22%
Standard Deviation	0.1821
Coefficient of Variation	21.48%
Price-related Differential	1.01
RELIABILITY	
95% Confidence: Median	
Lower limit	0.826
Upper limit	0.847
95% Confidence: Mean	
Lower limit	0.838
Upper limit	0.858
SAMPLE SIZE EVALUATION	
N (population size)	61154
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1821
Recommended minimum:	13
Actual sample size:	1228
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	649
# ratios above mean:	579
z:	1.969019002
Conclusion:	***Non-normal***
*i.e., no evidence of non-normality	
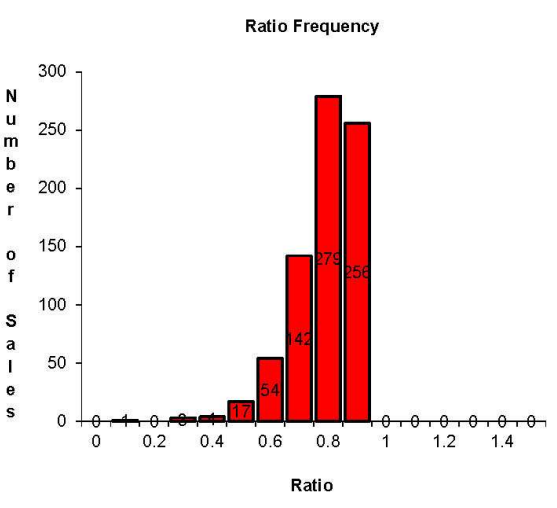
Ratio Frequency

(Histogram of Number of Sales vs. Ratio: values 0, 0, 0, 0, 0, 17, 54, 142, 279, 256, 0, 0, 0, 0, 0, 0, 0 across ratios 0 to 1.4)

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.03	0.67
2nd Std Dev	1.21	0.48

Tax Year 2021

	Lien Date:	Report Date:		Date Range of Sales:
Cycle Trend Report	**1/1/2020**	**12/9/2020**		**1/1/2019-12/31/2019**
All Cycles				
All Sales After Trend				

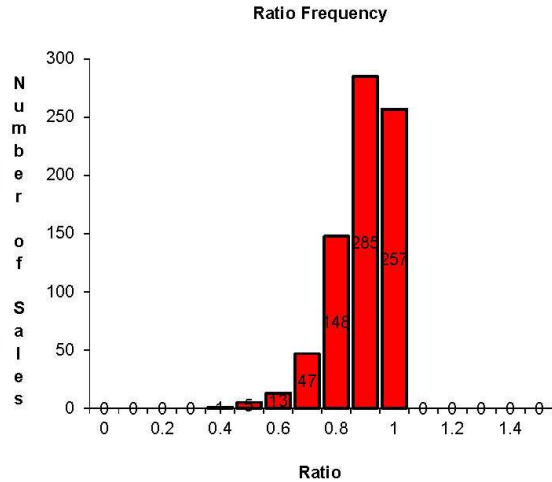| SAMPLE STATISTICS	
Sample size (n)	1228
Mean Assessed Value	232,200
Mean Sales Price	246,800
Standard Deviation AV	118,620
Standard Deviation SP	120,110
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.949
Median Ratio	0.938
Weighted Mean Ratio	0.941
UNIFORMITY	
Lowest ratio	0.3959
Highest ratio:	1.9233
Coeffient of Dispersion	13.97%
Standard Deviation	0.1754
Coefficient of Variation	18.48%
Price-related Differential	1.01
RELIABILITY	
95% Confidence: Median	
Lower limit	0.929
Upper limit	0.947
95% Confidence: Mean	
Lower limit	0.939
Upper limit	0.959
SAMPLE SIZE EVALUATION	
N (population size)	61154
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1754
Recommended minimum:	12
Actual sample size:	1228
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	650
# ratios above mean:	578
z:	2.026092017
Conclusion:	Non-normal

*i.e., no evidence of non-normality

Ratio Frequency

Number of Sales vs Ratio histogram: bars at 0.5 (≈3), 0.6 (≈13), 0.7 (47), 0.8 (148), 0.9 (285), 1.0 (257), with 0 values at 0, 0.2, 0.4, 1.2, 1.4.

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.12	0.77
2nd Std Dev	1.30	0.60

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Date Range of Sales:
Cycle 1 (Chehalis)	1/1/2020	12/9/2020		1/1/2019-12/31/2019
All Sales Before Trend				

SAMPLE STATISTICS	
Sample size (n)	240
Mean Assessed Value	229,600
Mean Sales Price	266,600
Standard Deviation AV	103,407
Standard Deviation SP	112,229
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.872
Median Ratio	0.860
Weighted Mean Ratio	0.861
UNIFORMITY	
Lowest ratio	0.4721
Highest ratio:	1.9233
Coeffient of Dispersion	14.15%
Standard Deviation	0.1683
Coefficient of Variation	19.31%
Price-related Differential	1.01
RELIABILITY	
95% Confidence: Median	
Lower limit	0.828
Upper limit	0.885
95% Confidence: Mean	
Lower limit	0.850
Upper limit	0.893
SAMPLE SIZE EVALUATION	
N (population size)	8626
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1683
Recommended minimum:	11
Actual sample size:	240
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	126
# ratios above mean:	114
z:	0.710046947
Conclusion:	Normal*
*i.e., no evidence of non-normality	
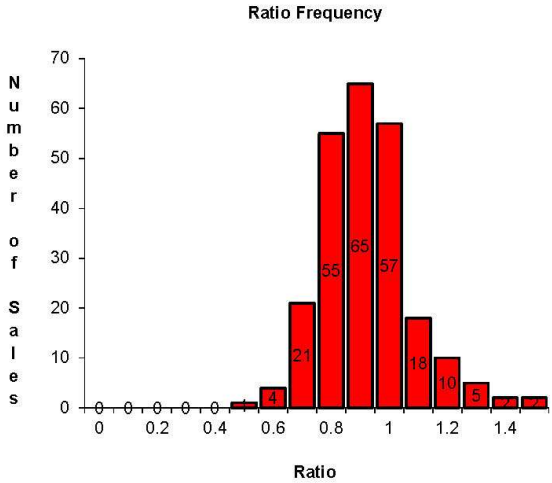
Ratio Frequency

Number of Sales vs Ratio histogram with values: 4, 21, 55, 65, 57, 18, 10, 5, 2, 2

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.04	0.70
2nd Std Dev	1.21	0.54

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Date Range of Sales:
Cycle 1 (Chehalis)	1/1/2020	12/9/2020		1/1/2019-12/31/2019
All Sales After Trend				

SAMPLE STATISTICS	
Sample size (n)	240
Mean Assessed Value	255,500
Mean Sales Price	266,600
Standard Deviation AV	116,055
Standard Deviation SP	112,229
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.967
Median Ratio	0.958
Weighted Mean Ratio	0.958
UNIFORMITY	
Lowest ratio	0.5720
Highest ratio:	1.9233
Coeffient of Dispersion	13.82%
Standard Deviation	0.1839
Coefficient of Variation	19.01%
Price-related Differential	1.01
RELIABILITY	
95% Confidence: Median	
Lower limit	0.930
Upper limit	0.981
95% Confidence: Mean	
Lower limit	0.944
Upper limit	0.991
SAMPLE SIZE EVALUATION	
N (population size)	8626
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1839
Recommended minimum:	14
Actual sample size:	240
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	127
# ratios above mean:	113
z:	0.839146392
Conclusion:	Normal*
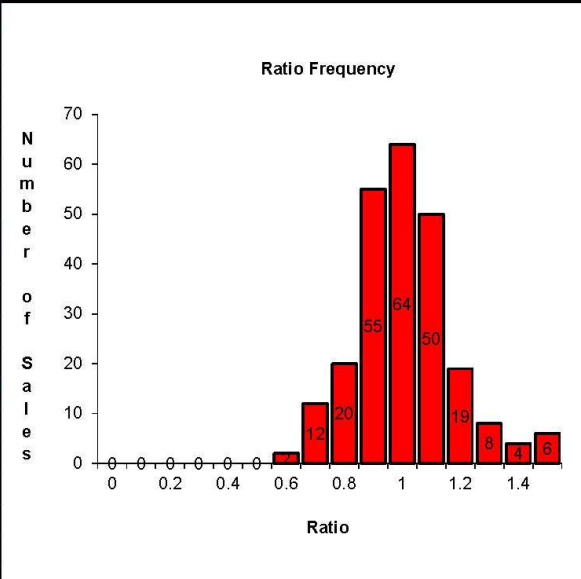
*i.e., no evidence of non-normality

Ratio Frequency

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.15	0.78
2nd Std Dev	1.34	0.60

24

Tax Year 2021

Cycle Trend Report	*Lien Date:*	*Report Date:*		*Date Range of Sales:*
Cycle 2 (Mossy/Onalsk)	**1/1/2020**	**12/9/2020**		**1/1/2019-12/31/2019**
All Sales Before Trend				

SAMPLE STATISTICS	
Sample size (n)	171
Mean Assessed Value	211,700
Mean Sales Price	245,400
Standard Deviation AV	115,266
Standard Deviation SP	128,592
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.874
Median Ratio	0.871
Weighted Mean Ratio	0.863
UNIFORMITY	
Lowest ratio	0.4547
Highest ratio:	1.3529
Coeffient of Dispersion	15.30%
Standard Deviation	0.1686
Coefficient of Variation	19.30%
Price-related Differential	1.01
RELIABILITY	
95% Confidence: Median	
Lower limit	0.829
Upper limit	0.909
95% Confidence: Mean	
Lower limit	0.848
Upper limit	0.899
SAMPLE SIZE EVALUATION	
N (population size)	10510
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1686
Recommended minimum:	11
Actual sample size:	171
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	86
# ratios above mean:	85
z:	0
Conclusion:	*Normal**
*i.e., no evidence of non-normality	

Ratio Frequency

(Histogram — Number of Sales vs Ratio)
Bars: 4, 4, 17, 29, 42, 36, 23, 10, 4, 2

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.04	0.71
2nd Std Dev	1.21	0.54

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Date Range of Sales:
Cycle 2 (Mossy/Onalsk)	1/1/2020	12/9/2020		1/1/2019-12/31/2019
All Sales After Trend				

SAMPLE STATISTICS	
Sample size (n)	171
Mean Assessed Value	230,500
Mean Sales Price	245,400
Standard Deviation AV	126,175
Standard Deviation SP	128,592
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.940
Median Ratio	0.939
Weighted Mean Ratio	0.939
UNIFORMITY	
Lowest ratio	0.4811
Highest ratio:	1.3794
Coeffient of Dispersion	14.15%
Standard Deviation	0.1653
Coefficient of Variation	17.59%
Price-related Differential	1.00
RELIABILITY	
95% Confidence: Median	
Lower limit	0.904
Upper limit	0.969
95% Confidence: Mean	
Lower limit	0.915
Upper limit	0.965
SAMPLE SIZE EVALUATION	
N (population size)	10510
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1653
Recommended minimum:	11
Actual sample size:	171
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	87
# ratios above mean:	84
z:	0.152943823
Conclusion:	Normal*
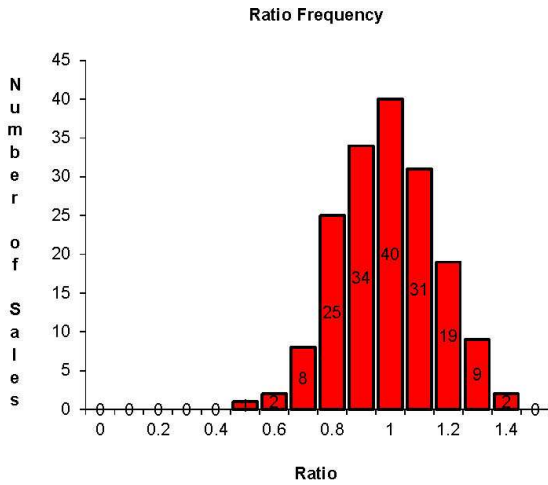
*i.e., no evidence of non-normality

Ratio Frequency

Number of Sales (y-axis): 0 to 45

Ratio (x-axis): 0 to 1.4

Bar values: 0, 0, 0, 0, 0, 0, 1, 2, 8, 25, 34, 40, 31, 19, 9, 2, 0

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.11	0.77
2nd Std Dev	1.27	0.61

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Date Range of Sales:
Cycle 3 (Adna/Napvn)	1/1/2020	12/9/2020		1/1/2019-12/31/2019
All Sales Before Trend				

SAMPLE STATISTICS	
Sample size (n)	160
Mean Assessed Value	234,800
Mean Sales Price	278,400
Standard Deviation AV	119,798
Standard Deviation SP	132,149
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.847
Median Ratio	0.854
Weighted Mean Ratio	0.843
UNIFORMITY	
Lowest ratio	0.4545
Highest ratio:	1.2872
Coeffient of Dispersion	12.67%
Standard Deviation	0.1373
Coefficient of Variation	16.21%
Price-related Differential	1.00
RELIABILITY	
95% Confidence: Median	
Lower limit	0.827
Upper limit	0.870
95% Confidence: Mean	
Lower limit	0.826
Upper limit	0.868
SAMPLE SIZE EVALUATION	
N (population size)	9381
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1373
Recommended minimum:	8
Actual sample size:	160
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	77
# ratios above mean:	83
z:	0.395284708
Conclusion:	Normal*
*i.e., no evidence of non-normality	
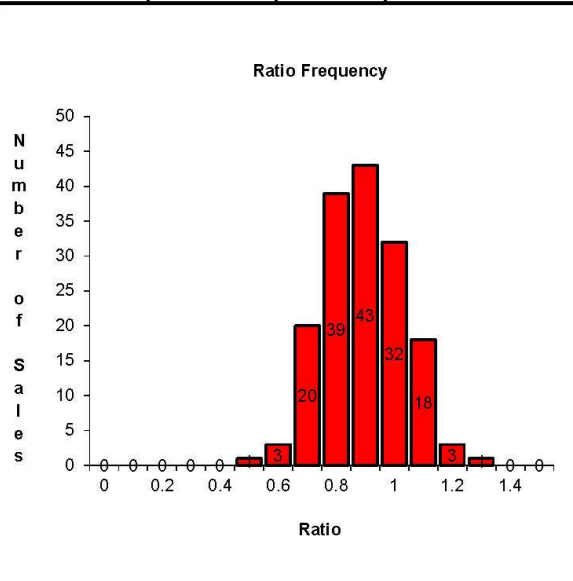
Ratio Frequency

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	0.98	0.71
2nd Std Dev	1.12	0.57

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Sales Range:
Cycle 3 (Adna/Napvn)	1/1/2020	12/9/2020		1/1/2019-12/31/2019
All Sales After Trend				

SAMPLE STATISTICS	
Sample size (n)	160
Mean Assessed Value	262,500
Mean Sales Price	278,400
Standard Deviation AV	130,942
Standard Deviation SP	132,149
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.948
Median Ratio	0.935
Weighted Mean Ratio	0.943
UNIFORMITY	
Lowest ratio	0.6555
Highest ratio:	1.3298
Coeffient of Dispersion	12.16%
Standard Deviation	0.1396
Coefficient of Variation	14.72%
Price-related Differential	1.01
RELIABILITY	
95% Confidence: Median	
Lower limit	0.913
Upper limit	0.969
95% Confidence: Mean	
Lower limit	0.926
Upper limit	0.969
SAMPLE SIZE EVALUATION	
N (population size)	9381
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1396
Recommended minimum:	8
Actual sample size:	160
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	84
# ratios above mean:	76
z:	0.553398591
Conclusion:	Normal*
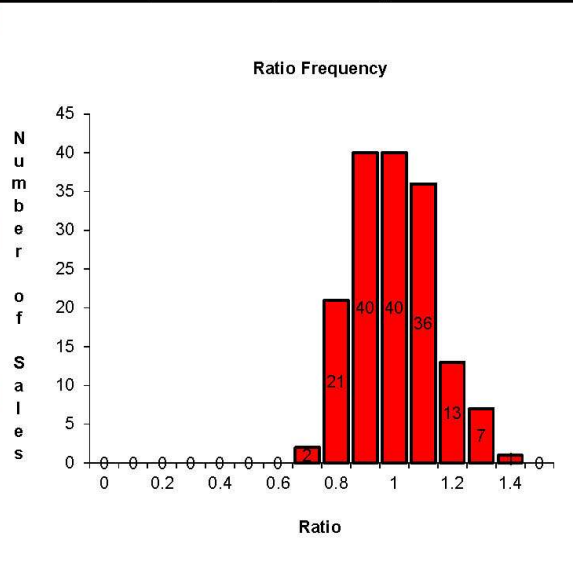
*i.e., no evidence of non-normality

Ratio Frequency

(Histogram: Number of Sales vs Ratio. Bars: 2 at ~0.7, 21 at ~0.8, 40 at ~0.9, 40 at ~1.0, 36 at ~1.1, 13 at ~1.2, 7 at ~1.3, 1 at ~1.4)

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.09	0.81
2nd Std Dev	1.23	0.67

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Date Range of Sales:
Cycle 4 (Tol/Win/Vad)	1/1/2020	12/9/2020		1/1/2019-12/31/2019
All Sales Before Reval				

SAMPLE STATISTICS	
Sample size (n)	170
Mean Assessed Value	213,100
Mean Sales Price	249,400
Standard Deviation AV	116,830
Standard Deviation SP	122,529
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.871
Median Ratio	0.863
Weighted Mean Ratio	0.854
UNIFORMITY	
Lowest ratio	0.2154
Highest ratio:	1.7254
Coeffient of Dispersion	18.07%
Standard Deviation	0.2098
Coefficient of Variation	24.07%
Price-related Differential	1.02
RELIABILITY	
95% Confidence: Median	
Lower limit	0.828
Upper limit	0.917
95% Confidence: Mean	
Lower limit	0.840
Upper limit	0.903
SAMPLE SIZE EVALUATION	
N (population size)	8895
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.2098
Recommended minimum:	18
Actual sample size:	170
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	86
# ratios above mean:	84
z:	0.076696499
Conclusion:	Normal*

*i.e., no evidence of non-normality

Ratio Frequency

Number of Sales vs Ratio

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.08	0.66
2nd Std Dev	1.29	0.45

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Date Range of Sales:
Cycle 4 (Tol/Win/Vad)	1/1/2020	12/9/2020		1/1/2019-12/31/2019
All Sales After Reval				

SAMPLE STATISTICS	
Sample size (n)	170
Mean Assessed Value	235,900
Mean Sales Price	249,400
Standard Deviation AV	115,148
Standard Deviation SP	122,529
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.971
Median Ratio	0.958
Weighted Mean Ratio	0.946
UNIFORMITY	
Lowest ratio	0.6528
Highest ratio:	1.5966
Coeffient of Dispersion	11.46%
Standard Deviation	0.1575
Coefficient of Variation	16.22%
Price-related Differential	1.03
RELIABILITY	
95% Confidence: Median	
Lower limit	0.939
Upper limit	0.976
95% Confidence: Mean	
Lower limit	0.947
Upper limit	0.995
SAMPLE SIZE EVALUATION	
N (population size)	8895
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1575
Recommended minimum:	10
Actual sample size:	170
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	96
# ratios above mean:	74
z:	1.610626477
Conclusion:	Normal*

*i.e., no evidence of non-normality

Ratio Frequency

Number of Sales vs Ratio

Ratio	Number of Sales
0.7	5
0.8	12
0.9	36
1	61
1.1	33
1.2	9
1.3	9
1.5	5

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.13	0.81
2nd Std Dev	1.29	0.66

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Date Range of Sales:	
Cycle 5 (East County)	1/1/2020	12/9/2020		1/1/2019-12/31/2019	
All Sales Before Trend					

SAMPLE STATISTICS	
Sample size (n)	149
Mean Assessed Value	126,700
Mean Sales Price	163,900
Standard Deviation AV	81,554
Standard Deviation SP	103,936
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.807
Median Ratio	0.781
Weighted Mean Ratio	0.773
UNIFORMITY	
Lowest ratio	0.3565
Highest ratio:	1.9224
Coeffient of Dispersion	23.03%
Standard Deviation	0.2508
Coefficient of Variation	31.06%
Price-related Differential	1.04
RELIABILITY	
95% Confidence: Median	
Lower limit	0.733
Upper limit	0.822
95% Confidence: Mean	
Lower limit	0.767
Upper limit	0.848
SAMPLE SIZE EVALUATION	
N (population size)	11531
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.2508
Recommended minimum:	25
Actual sample size:	149
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	83
# ratios above mean:	66
z:	1.310771073
Conclusion:	Normal*
*i.e., no evidence of non-normality	
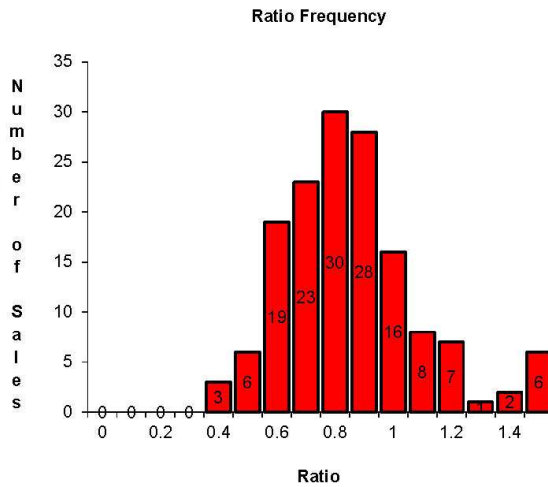
Ratio Frequency

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.06	0.56
2nd Std Dev	1.31	0.31

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Date Range of Sales:
Cycle 5 (East County)	1/1/2020	12/9/2020		1/1/2019-12/31/2019
All Sales After Trend				

SAMPLE STATISTICS	
Sample size (n)	149
Mean Assessed Value	147,000
Mean Sales Price	163,900
Standard Deviation AV	96,069
Standard Deviation SP	103,936
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.916
Median Ratio	0.906
Weighted Mean Ratio	0.897
UNIFORMITY	
Lowest ratio	0.3959
Highest ratio:	1.9224
Coeffient of Dispersion	20.15%
Standard Deviation	0.2476
Coefficient of Variation	27.02%
Price-related Differential	1.02
RELIABILITY	
95% Confidence: Median	
Lower limit	0.862
Upper limit	0.942
95% Confidence: Mean	
Lower limit	0.877
Upper limit	0.956
SAMPLE SIZE EVALUATION	
N (population size)	11531
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.2476
Recommended minimum:	24
Actual sample size:	149
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	76
# ratios above mean:	73
z:	0.163846384
Conclusion:	Normal*
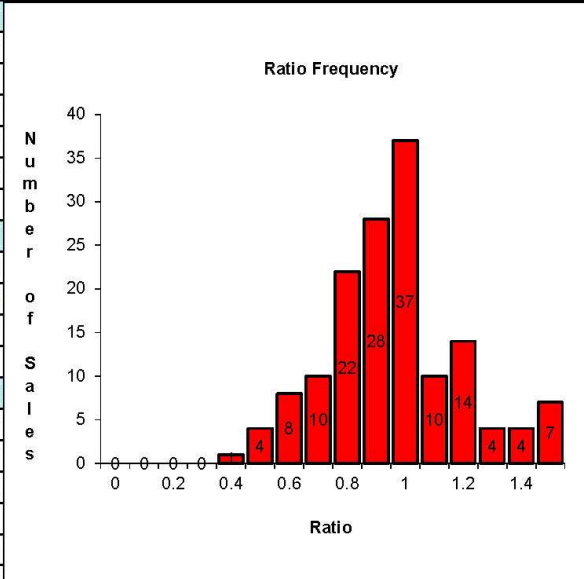
*i.e., no evidence of non-normality

Ratio Frequency

Number of Sales vs Ratio histogram with bars labeled: 4, 8, 10, 22, 28, 37, 10, 14, 4, 4, 7

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.16	0.67
2nd Std Dev	1.41	0.42

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Date Range of Sales:
Cycle 6 (Centralia)	1/1/2020	12/9/2020		1/1/2019-12/31/2019
All Sales Before Trend				

SAMPLE STATISTICS	
Sample size (n)	338
Mean Assessed Value	206,500
Mean Sales Price	253,700
Standard Deviation AV	91,152
Standard Deviation SP	104,382
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.824
Median Ratio	0.815
Weighted Mean Ratio	0.814
UNIFORMITY	
Lowest ratio	0.0822
Highest ratio:	1.2989
Coeffient of Dispersion	14.97%
Standard Deviation	0.1594
Coefficient of Variation	19.34%
Price-related Differential	1.01
RELIABILITY	
95% Confidence: Median	
Lower limit	0.793
Upper limit	0.834
95% Confidence: Mean	
Lower limit	0.807
Upper limit	0.841
SAMPLE SIZE EVALUATION	
N (population size)	12211
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1594
Recommended minimum:	10
Actual sample size:	338
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	181
# ratios above mean:	157
z:	1.251035074
Conclusion:	Normal*
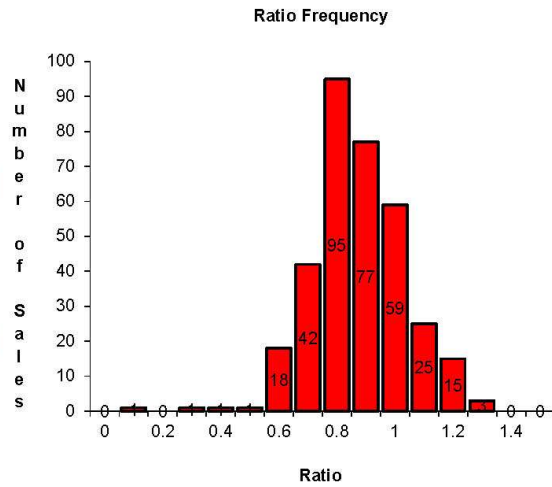
*i.e., no evidence of non-normality

Ratio Frequency

Number of Sales (y-axis: 0 to 100)

Bars: 18, 42, 95, 77, 59, 25, 15

Ratio (x-axis: 0, 0.2, 0.4, 0.6, 0.8, 1, 1.2, 1.4)

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	0.98	0.66
2nd Std Dev	1.14	0.51

Tax Year 2021

Cycle Trend Report	Lien Date:	Report Date:		Date Range of Sales
Cycle 6 (Centralia)	1/1/2020	12/9/2020		1/1/2019-12/31/2019
All Sales After Trend				

SAMPLE STATISTICS	
Sample size (n)	338
Mean Assessed Value	237,800
Mean Sales Price	253,700
Standard Deviation AV	103,863
Standard Deviation SP	104,382
ASSESSMENT LEVEL	
Arithmetic mean ratio	0.944
Median Ratio	0.922
Weighted Mean Ratio	0.937
UNIFORMITY	
Lowest ratio	0.5970
Highest ratio:	1.5258
Coeffient of Dispersion	13.28%
Standard Deviation	0.1570
Coefficient of Variation	16.63%
Price-related Differential	1.01
RELIABILITY	
95% Confidence: Median	
Lower limit	0.900
Upper limit	0.940
95% Confidence: Mean	
Lower limit	0.928
Upper limit	0.961
SAMPLE SIZE EVALUATION	
N (population size)	12211
B (acceptable error - in decimal)	0.1
S (estimated from this sample)	0.1570
Recommended minimum:	10
Actual sample size:	338
Conclusion:	OK
NORMALITY	
Binomial Test	
# ratios below mean:	193
# ratios above mean:	145
z:	2.556462978
Conclusion:	Non-normal
*i.e., no evidence of non-normality	
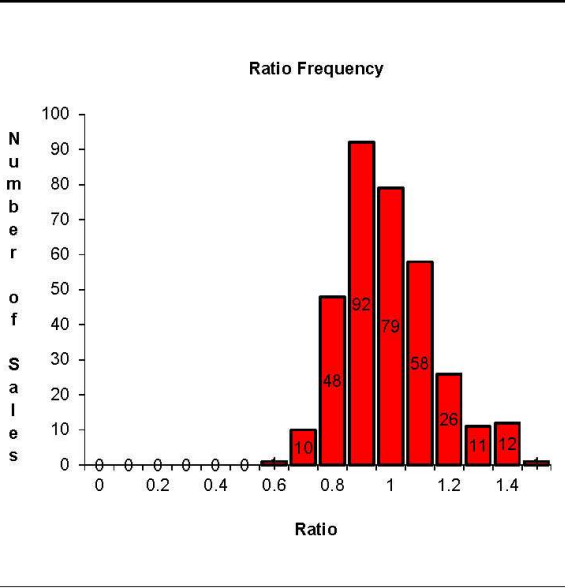
Ratio Frequency

(Histogram: Number of Sales vs Ratio)

Values shown: 10, 48, 92, 79, 58, 26, 11, 12

Note: COV/COD are typically high for this report, as it includes many property types and areas.

Std Dev.	Upr Lmt	Lwr Limit
1st Std Dev	1.10	0.79
2nd Std Dev	1.26	0.63